

# MAXWELL JONES

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## EDUCATION

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### *Bachelor of Science, Artificial Intelligence and Math*

**2019-Present**

**Carnegie Mellon University '23**, Pittsburgh, PA

**GPA: 4.0**

- Fundamentals of Programming and Computer Science, Principles of Imperative Computation
- Calculus I, II, Linear Algebra, Physics I, II
- Principles of Macro/Micro Economics, US History

### *High School Graduate*

**2015-2019**

**Thomas Jefferson High School for Science and Technology**, Alexandria, VA

**GPA: ~3.6**

- Multivariable Calculus, Complex Analysis, Differential Equations

## STRENGTHS AND PROJECTS

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### *Coding*

- Python, Java, SQL, Julia, Javascript, HTML, Sklearn, Keras, NumPy
- Proficient with neural networks, random forests, pathfinding algorithms (Dijkstra, A\*), Traveling Salesmen Problem, Game AIs (heuristic, negamax, alpha-beta pruning)

### *Projects*

- Helped create **WalkSafe**, a program that outputted **Safe and Efficient** walking paths given a start and end point at night in dangerous areas, using a maps API, A\*, and crime data at **TartanHacks 2019**
- Competed in an online AI housing competition, implementing **random forests** through Sklearn.
- Coded an algorithm that played a game of **Othello** against a human using a heuristic and negamax/alpha beta pruning for finding new moves.
- Used Python to make a **two-layer neural network** with six hidden nodes without the use of libraries. I used this network to test my understanding of neural networks.
- Created a program to calculate plus/minus for basketball lineups, given when players came in and out of games and when teams scored (implemented for my varsity high school basketball team).

## LEADERSHIP AND EXPERIENCE

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### *Personal Computer Science and AI Tutor*

- Group tutor for high school/middle school students in an introductory course about Java.
- One-on-one tutor for students in AI using Python.

### *Origami*

- Wrote a column on young origamists in *The Paper*, a national origami magazine.
- Created an origami website for young origamists to share work.
- Taught origami in multiple countries across three continents.

### *High School*

- Tutored middle school students in math and science and led a bi-weekly program to help underrepresented minorities gain interest in STEM through science labs.

### *College*

- Treasurer for SPIRIT, CMU's Black Student Organization
- Club Basketball
- CMU SCS Social Media Ambassador
- TA for 15-151: A discrete math course for freshman in CMU's School of Computer Science